Nuclear Data on the Internet

R.B. Firestone[†], S.Y.F. Chu[†], and L.P. Ekström[‡]

The LBNL Isotopes Project has been providing nuclear data over the Internet since 1995. Currently home pages are supported for the *Table of Isotopes*, Isotope Explorer 2.0 software, Nuclear Science References, Radioactive decay, High-Spin and Nuclear Structure, Nuclear Astrophysics, Thermal Neutron Capture, Spontaneous Fission, Atomic Masses, Nuclear Moments, Elemental Properties, Atomic Data, Interaction of Radiation with Matter, and Q-Value Calculations. The home pages contain links to data in text, postscript, Adobe Acrobat PDF, and HTML formats.

These home pages are maintained on two servers, "isotopes.lbl.gov/isotopes" a VAXstation 4000 computer managed by the Nuclear Science Division at LBNL, and "ie.lbl.gov" a PC(NT) computer managed by the Isotopes Project. Some data are also mirrored at Lund University in Sweden.

The NSR and ENSDF databases provided on our servers are obtained from the National Nuclear Data Center (NNDC) at Brookhaven National Laboratory. The NSR file is then indexed at LBNL and organized for rapid dissemination on the WWW. Comments in the ENSDF file are translated at LBNL into computer readable format with software provided by the NNDC and then converted to ENSDF/2 format for computer usage. ENSDF catalog files are then created to facilitate their dissemination to Isotope Explorer 2.0 software over the Internet. Both Isotope Explorer 2.0 and the NSR Server home page send requests to the Isotope Project servers for data and references.

The usage of the Isotopes Project Internet nuclear data services continues to grow. As many as 76,000 link requests have been processed in a single month. About 4000 separate users access these websites each month. The number of ENSDF/2 Isotope data files downloaded each month varies widely for a few thousand to nearly 50,000 in the busiest month. A summary of data site usage for 1996-1997 is shown in figure 1.

Footnotes and References

[†]Lawrence Berkeley National Laboratory [‡]Lund University, Sweden

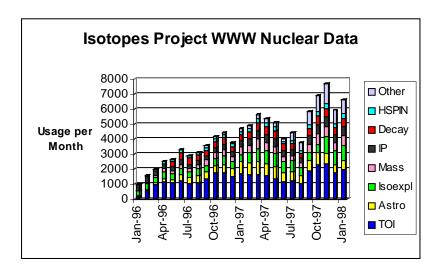


Figure 1. Access to Internet nuclear data on Isotopes Project home pages. The totals indicate the number of times each home page is accessed each month.